

## Stout 2020V2

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **36.8**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **34.2 liter(s)**
- Total mash volume **41.8 liter(s)**

### Steps

- Temp **63 C**, Time **20 min**
- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **34.2 liter(s)** of strike water to **67.8C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **33.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pale Ale	6 kg (78.9%)	79 %	6
Grain	Strzegom Barwiący	0.7 kg (9.2%)	68 %	1300
Grain	Strzegom Karmel 150	0.5 kg (6.6%)	75 %	150
Grain	Płatki owsiane	0.4 kg (5.3%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Aroma (end of boil)	Lublin (Lubelski)	50 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Dry	11 g	---